



Inc 23/24 CRR - CO₂ SDTO

Medical Operations

Presenter

SD24/Jamie Moore

Date

February 4, 2010

- Objectives
 - Use the CDM to determine magnitude of local CO₂ accumulations.
 - Correlate to area monitoring data, crew activity and possible symptoms.
 - So far, 5 sessions have been completed, and 3 more are required to meet the SDTO minimum (although at least 5 more sessions are desired).
- Rationale
 - There is anecdotal evidence that spatial variations in air pollutants can occur causing crew impairment.
 - The resulting data can be used to verify or change ISS CO₂ management.
 - Members of the Constellation Program have expressed an interest in the data for developing CO₂ requirements.
- Hardware
 - CDM currently used onboard.
 - CDM will be connected to the MEC using the CSA-CP Data Cable to download CDM data.



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- Crew activities
 - CO2 Workday Survey Setup (10 min)
 - » Procedure: **Uplinked Procedures; US SODF; MED Ops: 22-0400 2.5.280 CARBON DIOXIDE MONITOR: CDM - OPERATIONS FOR CARBON DIOXIDE MONITORING**
 - » Unstow CDM, activate it, strap it to the body.
 - » Scheduled at beginning of crew workday.
 - CDM Data Download (30 min)
 - » Procedure: **US SODF; MED OPS; 2.5.200 CARBON DIOXIDE MONITOR: CDM - DATA DOWNLOAD**
 - » Hook up CDM to MEC using CSA-CP Data Cable, download CDM data to MEC, restow CDM and Data Cable.
 - » Scheduled at end of crew workday.
 - » Following this activity, BME will request CDM data in an MEC File Downlink.



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- CO2 SDTO is in the main IDRD for Increment 23/24.
- Goal is to get 3 sessions completed during Increment 23/24.
- Preferred for each crewmember performing this SDTO to complete 2 sessions.
- For reference, please see **SDTO 25007-U SPATIAL DIFFERENCES IN CO2 CONCENTRATIONS ON ISS (Part 2)** in the SDTO Catalog (<http://iss-www.jsc.nasa.gov/nwo/mio/pii/sdto/web/catalog.shtml>)